11-10-3

Attorney's Docket No.: 16662-009001

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Tony Cruz et al. Art Unit : 1653
Serial No. : 09/978,309 Examiner : Samuel W. Liu
Filed : October 15, 2001
Title : COMPOSITIONS AND METHODS FOR TREATING CELLULAR RESPONSE TO INJURY AND OTHER PROLIFERATING CELL DISORDERS REGULATED BY HYALADHERIN AND HYALURONANS

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Applicant submits the references listed on the attached form PTO-1449. A copy of a communication from a foreign patent office in a counterpart application is also enclosed. All other references cited in the communication have been previously submitted to the U.S. Patent and Trademark Office.

Applicants also enclose a copy of the Alting-Mees reference cited in the April 19, 2002 IDS for the convenience of the Examiner.

CERTIFICATE OF MAILING BY EXPRESS MAIL

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November 7, 2003
Date of Deposit

This statement is being filed after a first Office action on the merits, but before receipt of a final Office action or a Notice of Allowance. A check for $180 in payment of the late submission fee of §1.17(p) is enclosed. Please apply any other charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: November 7, 2003

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Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 16602-009001	Application No. 09/978,309
Supplemental Information Disclosure Statement by Applicant (Use several sheets if necessary) (37 CFR §1.98(b))		Applicant Tony Cruz et al.	
		Filing Date October 15, 2001	Group Art Unit 1653

U.S. Patent Documents

Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

Foreign Patent Documents or Published Foreign Patent Applications

Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation Yes	Translation No
	AL	WO 02/28415	04/11/2002	PCT				
	AM	WO 02/13848	02/21/2002	PCT				
	AN							
	AO							
	AP							

Other Documents (include Author, Title, Date, and Place of Publication)

Examiner Initial	Desig. ID	Document
	AQ	
	AR	
	AS	
	AT	

Examiner Signature	Date Considered

EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

PATENT COOPERATION TREATY

DUE DATE PROCESSED Sept. 15. 2003

PCT

From the INTERNATIONAL SEARCHING AUTHORITY

To:
TORYS LLP
Maritime Life Tower
Suite 3000, 79 Wellington St. W.,
Box 270, TD Centre
Toronto, Ontario M5K 1N2
CANADA

RECEIVED AUG 8 2003

INVITATION TO PAY ADDITIONAL FEES

(PCT Article 17(3)(a) and Rule 40.1)

REGISTERED MAIL

Applicant's or agent's file reference 31540-2039	Date of mailing *(day/month/year)* 01/08/2003
International application No. PCT/CA 02/ 01563	**PAYMENT DUE** within 45 ~~months~~/days from the above date of mailing
Applicant TRANSITION THERAPEUTICS INC.	International filing date *(day/month/year)* 15/10/2002

1. This International Searching Authority

(i) considers that there are 12 *(number of)* inventions claimed in the international application covered by the claims indicated ~~below~~/on the extra sheet:

and it considers that the international application does not comply with the requirements of unity of invention (Rules 13.1, 13.2 and 13.3) for the reasons indicated ~~below~~/on the extra sheet:

(ii) [X] has carried out a partial international search (see Annex) [ ] will establish the international search report on those parts of the international application which relate to the invention first mentioned in claims Nos.:

partially 1-12

(iii) will establish the international search report on the other parts of the international application only if, and to the extent to which, additional fees are paid

2. The applicant is hereby **invited,** within the time limit indicated above, to pay the amount indicated below:

EUR 945,00	x	11	=	EUR 10.395,00
Fee per additional invention		number of additional inventions		total amount of additional fees

Or, _____ x _____ = _____

The applicant is informed that, according to Rule 40.2(c), **the payment f any additional fee may be made under protest,** i.e., a reasoned statement to the effect that the international application complies with the requir ment of unity of invention or that the amount of th required additional fee is excessive.

3. [X] Claim(s) Nos. 3, 8-12 have been found to be unsearchable under Article 17(2)(b) because of defects under Article 17(2)(a) and therefore have not been included with any invention.

Name and mailing address of the International Searching Authority	Authorized officer
European Patent Offic , P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Heike Zoglauer

INVITATION TO PAY ADDITIONAL FEES

International application No.

PCT/CA 02/01563

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: partially 1-12

A polypeptide comprising an amino acid sequence P-16 SEQ ID N°26, a pharmaceutical composition comprising said polypeptide, the use of said composition for the treatment of a disease consisting of multiple sclerosis, diabetes mellitus, restenosis, an antibody which binds said polypeptide, a vaccine comprising an antigen of said antibody, a method of treating a disease consisting of multiple sclerosis, diabetes mellitus, restenosis comprising administering said polypeptide, and use of said polypeptide and said antibodies for the treatment of a disease consisting of multiple sclerosis, diabetes mellitus, restenosis.

2. Claims: partially 1-12

A polypeptide comprising an amino acid sequence P-16 SEQ ID N°71, a pharmaceutical composition comprising said polypeptide, the use of said composition for the treatment of a disease consisting of multiple sclerosis, diabetes mellitus, restenosis, an antibody which binds said polypeptide, a vaccine comprising an antigen of said antibody, a method of treating a disease consisting of multiple sclerosis, diabetes mellitus, restenosis comprising administering said polypeptide, and use of said polypeptide and said antibodies for the treatment of a disease consisting of multiple sclerosis, diabetes mellitus, restenosis.

3. Claims: partially 1-12

A polypeptide comprising an amino acid sequence P-16 SEQ ID N°81, a pharmaceutical composition comprising said polypeptide, the use of said composition for the treatment of a disease consisting of multiple sclerosis, diabetes mellitus, restenosis, an antibody which binds said polypeptide, a vaccine comprising an antigen of said antibody, a method of treating a disease consisting of multiple sclerosis, diabetes mellitus, restenosis comprising administering said polypeptide, and use of said polypeptide and said antibodies for the treatment of a disease consisting of multiple sclerosis, diabetes mellitus, restenosis.

4. Claims: partially 1-12

A polypeptide comprising an amino acid sequence P-16 SEQ ID N°82, a pharmaceutical composition comprising said polypeptide, the use of said composition for the treatment of a disease consisting of multiple sclerosis, diabetes mellitus, restenosis, an antibody which binds said

polypeptide, a vaccine comprising an antigen of said antibody, a method of treating a disease consisting of multiple sclerosis, diabetes mellitus, restenosis comprising administering said polypeptide, and use of said polypeptide and said antibodies for the treatment of a disease consisting of multiple sclerosis, diabetes mellitus, restenosis.

5. Claims: partially 1-12

A polypeptide comprising an amino acid sequence P-16 SEQ ID N°73, a pharmaceutical composition comprising said polypeptide, the use of said composition for the treatment of a disease consisting of multiple sclerosis, diabetes mellitus, restenosis, an antibody which binds said polypeptide, a vaccine comprising an antigen of said antibody, a method of treating a disease consisting of multiple sclerosis, diabetes mellitus, restenosis comprising administering said polypeptide, and use of said polypeptide and said antibodies for the treatment of a disease consisting of multiple sclerosis, diabetes mellitus, restenosis.

6. Claims: partially 1-12

A polypeptide comprising an amino acid sequence P-16 SEQ ID N°74, a pharmaceutical composition comprising said polypeptide, the use of said composition for the treatment of a disease consisting of multiple sclerosis, diabetes mellitus, restenosis, an antibody which binds said polypeptide, a vaccine comprising an antigen of said antibody, a method of treating a disease consisting of multiple sclerosis, diabetes mellitus, restenosis comprising administering said polypeptide, and use of said polypeptide and said antibodies for the treatment of a disease consisting of multiple sclerosis, diabetes mellitus, restenosis.

7. Claims: partially 1-12

A polypeptide comprising an amino acid sequence P-16 SEQ ID N°75, a pharmaceutical composition comprising said polypeptide, the use of said composition for the treatment of a disease consisting of multiple sclerosis, diabetes mellitus, restenosis, an antibody which binds said polypeptide, a vaccine comprising an antigen of said antibody, a method of treating a disease consisting of multiple sclerosis, diabetes mellitus, restenosis comprising administering said polypeptide, and use of said polypeptide and said antibodies for the treatment of a disease consisting of multiple sclerosis, diabetes mellitus, restenosis.

8. Claims: partially 1-12

A polypeptide comprising an amino acid sequence P-16 SEQ ID N°76, a pharmaceutical composition comprising said polypeptide, the use of said composition for the treatment of a disease consisting of multiple sclerosis, diabetes mellitus, restenosis, an antibody which binds said polypeptide, a vaccine comprising an antigen of said antibody, a method of treating a disease consisting of multiple sclerosis, diabetes mellitus, restenosis comprising administering said polypeptide, and use of said polypeptide and said antibodies for the treatment of a disease consisting of multiple sclerosis, diabetes mellitus, restenosis.

9. Claims: partially 1-12

A polypeptide comprising an amino acid sequence P-16 SEQ ID N°77, a pharmaceutical composition comprising said polypeptide, the use of said composition for the treatment of a disease consisting of multiple sclerosis, diabetes mellitus, restenosis, an antibody which binds said polypeptide, a vaccine comprising an antigen of said antibody, a method of treating a disease consisting of multiple sclerosis, diabetes mellitus, restenosis comprising administering said polypeptide, and use of said polypeptide and said antibodies for the treatment of a disease consisting of multiple sclerosis, diabetes mellitus, restenosis.

10. Claims: partially 1-12

A polypeptide comprising an amino acid sequence P-16 SEQ ID N°78, a pharmaceutical composition comprising said polypeptide, the use of said composition for the treatment of a disease consisting of multiple sclerosis, diabetes mellitus, restenosis, an antibody which binds said polypeptide, a vaccine comprising an antigen of said antibody, a method of treating a disease consisting of multiple sclerosis, diabetes mellitus, restenosis comprising administering said polypeptide, and use of said polypeptide and said antibodies for the treatment of a disease consisting of multiple sclerosis, diabetes mellitus, restenosis.

11. Claims: partially 4-12

An antibody which binds said polypeptide comprising a SEQ ID N°80, a vaccine comprising an antigen of said antibody, a method of treating a disease consisting of multiple sclerosis, diabetes mellitus, restenosis comprising administering said polypeptide, and use of said polypeptide and said antibodies for the treatment of a disease consisting of multiple sclerosis, diabetes mellitus, restenosis.

12. Claims: partially 4-12

An antibody which binds said polypeptide comprising a SEQ ID N°83, a vaccine comprising an antigen of said antibody, a method of treating a disease consisting of multiple sclerosis, diabetes mellitus, restenosis comprising administering said polypeptide, and use of said polypeptide and said antibodies for the treatment of a disease consisting of multiple sclerosis, diabetes mellitus, restenosis.

1.4 According to Rule 13 PCT an application must relate to one invention only or to a group of inventions so linked as to form a single general inventive concept, i.e. having at least one common technical feature defining a contribution over the known prior art.

1.5 In the present case, the single general inventive concept of the inventions identified above is considered to be the provision of compounds that binds to hyaluronic acid and thereby inhibit the binding of hyaluronic acid to receptor hyaluronic acid mediated motility.

1.6 WO0228415 discloses p-16 (SEQ ID N°26) and p-32 (SEQ ID N°71) and antibodies which binds thereto (see p.2 lines 27; p.8 line 16, p.8 line 18, p.8 lines 23-28; p. 12 lines 6-7, Figure 27; p.57 lines 23-29; p.62 line 7; p.70 line 2-3; exemple 37, p. lines 22-23. wo0213848 discloses in exemple 1 98 a peptide having SEQ ID N°2. wo9321312 discloses HA binding peptides (see p.37 line 28 to p.38 line 18).

1.7 The present application was filed by Transition therapeutics Inc. the 15.10 2002 and claims priority from US09978309 filed the 15.10.2001. However some of the subject-matter (e.g. SEQ ID N°26 and SEQ ID N°71) claimed in the present application was already disclosed in a previous applications: WO0228415, published the 11.4.2002, filed by the same applicant the 5.10.2000. No priority is claimed for WO0228415. Thus, the priority document of the present application, to which the priority claim is directed, is not the first application disclosing for the first time some of the subject-matter (e.g. SEQ ID N°26 and SEQ ID N°71) of the present international application as required by Article 8 (2)a) PCT (see Article 8 PCT referring back to Article 4 of the Stockholm Act of the Paris Convention for the Protection of Industrial Property, PCT Guidelines C-V 1.4). The priority is accordingly not valid for some of the subject-matter (e.g. SEQ ID N°26 and SEQ ID N°71) of the present application.

In the light of this rationale, WO0228415 and Wo0213848 published the 11.4.2002 must be considered as prior art document by virtue of Article 33 (1) PCT,

1.7 In view of wo0228415 and wo0213848, and wo9321312 the common technical features are known. Thus, the inventions identified above are not so linked as to form a single inventive concept and must be seen, each one of them, as a particular and specific solution to the underlying technical problem of providing another compound that binds to hyaluronic acid and thereby inhibits the binding of hyaluronic acid to

receptor hyaluronic acid mediated motility.

1.8 As a consequence, an objection of unity under Rule 13 PCT is raised.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 206

Continuation of Box 3.

Although claims 3, 8-12, are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.

Annex to Form PCT/ISA/206
COMMUNICATION RELATING TO THE RESULTS
OF THE PARTIAL INTERNATIONAL SEARCH

International Application No
PCT/CA 02/01563

1. The present communication is an Annex to the invitation to pay additional fees (Form PCT/ISA/206). It shows the results of the international search established on the parts of the international application which relate to the invention first mentioned in claims Nos.:
see 'Invitation to pay additional fees'
2. This communication is not the international search report which will be established according to Article 18 and Rule 43.

3. If the applicant does not pay any additional search fees, the information appearing in this communication will be considered as the result of the international search and will be included as such in the international search report.

4. If the applicant pays additional fees, the international search report will contain both the information appearing in this communication and the results of the international search on other parts of the international application for which such fees will have been paid.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 02 28415 A (CRUZ TONY F ;TURLEY EVA A (CA); TRANSITION THERAPEUTICS AND DI (CA) 11 April 2002 (2002-04-11) the whole document	1-12
X	WO 93 21312 A (MANITOBA CANCER TREATMENT ;UNIV MANITOBA (CA); TURLEY EVA ANN (CA)) 28 October 1993 (1993-10-28)	1-12
Y	the whole document	1-12
Y	EP 0 950 708 A (CANGENE CORP) 20 October 1999 (1999-10-20) the whole document	1-12
X	WO 02 13848 A (INVITROGEN CORP) 21 February 2002 (2002-02-21) SEQ ID N°2	1

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

° Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Patent Family Annex

Information on patent family members

International Application No
PCT/CA 02/01563

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
WO 0228415	A	11-04-2002	WO	0228415 A1	11-04-2002
			AU	7812200 A	15-04-2002
			EP	1324765 A1	09-07-2003
WO 9321312	A	28-10-1993	AU	3885793 A	18-11-1993
			WO	9321312 A1	28-10-1993
			EP	0636174 A1	01-02-1995
EP 0950708	A	20-10-1999	EP	0950708 A2	20-10-1999
			US	6271344 B1	07-08-2001
WO 0213848	A	21-02-2002	AU	8485301 A	25-02-2002
			EP	1307214 A1	07-05-2003
			WO	0213848 A1	21-02-2002
			US	2002155455 A1	24-10-2002